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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,575	07/31/2001	Vu V. Luu	K35A0782	5985

35219 7590 05/26/2004

WESTERN DIGITAL TECHNOLOGIES, INC.
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EXAMINER

CHEN, TSE W

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/920,575	LUU ET AL.	
	Examiner	Art Unit	
	Tse Chen	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/31/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puckette, U.S. Patent 6385721, in view of Bates et al., U.S. Patent 6367074, hereinafter Bates.

3. These rejections are supported by the following findings:

Findings

3.1. Puckette discloses a disk drive [mass storage device 30; fig.2] for use with a computer system [personal computer 10] configured to generate a command [col.9, ll.7-17; F10 command signal is generated in response to F10 key].

3.2. Puckette discloses the disk drive comprising a host-accessible user partition [bootable OS partition 48].

3.3. Puckette discloses the host-accessible user partition including a user partition address range [col.6, ll.19-33].

3.4. Puckette discloses the host-accessible user partition including a host-selected operating system [OS 66; col.6, ll.64-65] stored within the user partition address range [fig.2].

3.5. Puckette discloses the host-accessible user partition including a host-selected master boot record [boot record 46, denoted for both partitions; col.6, ll.23-25] stored within the user partition address range [fig.2].

3.6. Puckette discloses the host selected master boot record identifying the host-selected operating system [col.6, ll.63-66].

3.7. Puckette discloses the disk drive comprising a host-inaccessible hidden partition [hibernation partition 50; col.6, ll.60-62; col.7, ll.3-8] independent of the host-accessible user partition [fig.2; col.6, ll.17-19].

3.8. Puckette discloses the host-inaccessible hidden partition including a hidden partition address range outside the user partition address range [fig.2; col.6, ll.19-33].

3.9. Puckette discloses the host-inaccessible hidden partition including a drive-selected boot record [boot record 46, denoted for both partitions; col.6, ll.23-25] stored within the hidden partition address range [fig.2].

3.10. Puckette discloses the drive-selected boot record configured to load [col.6, ll.23-26, ll.40-42] an instruction set [fully functional BIOS; col.7, ll.51-52] capable of executing an application program [utility program; col.7, l.15; col.8, ll.15-16] having a user interface [microphone or touch pad; col.8, ll.22-23] [minimal BIOS loads drive-selected boot record 46 which loads fully functional BIOS to execute the program].

3.11. Puckette discloses the drive-selected boot record configured to execute the application program [col.8, ll.15-16, ll.20-21].

3.12. Puckette discloses the drive-selected boot record configured to accept a user input [col.8, ll.14-24; inherently, user input of either voice or signature must be accepted in order for authentication to work].

3.13. Puckette discloses the drive-selected boot record configured to load an operating system configured to perform a function [col.7, ll.14-16; some form of operating system such

as a simple OS is needed to run the utility programs or functions and thus, both the OS and programs are stored together].

3.14. Puckette discloses the host-inaccessible hidden partition including at least one drive-selected operating system configurable to perform at least one function [col.7, ll.12-15, programs are used to perform some kind of function, with support from the OS].

3.15. Puckette discloses the disk drive comprising a disk controller [BIOS 14] configured to receive the command [F10 command signal] from the computer system and to send the drive-selected boot record to the computer system in response to receipt of the command [col.9, ll.7-17].

3.16. Puckette discloses the operating system configured to perform the user-selectable function is the drive-selected operating system [col.7, ll.12-16; the utility programs for the user-selectable function is stored with the necessary OS].

3.17. Puckette discloses the operating system configured to perform the user-selectable function is the host-selected operating system [col.7, ll.4-8, ll.12-15; the host-selected operating system could also be MSDOS, just like the drive-selected operating system in order to provide an in corruptible backup].

3.18. Puckette discloses the command is a boot command [col.7, ll.26-28; F10 as used is essentially a boot command, in that it resets the computer similar to the more familiar ctrl+alt+del command].

3.19. Puckette discloses a host computer [personal computer 10] coupled to the disk drive [mass storage device 30] [col.6, ll.4-8].

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3.20. Puckette discloses the host computer including a host processor [CPU 40] configured to generate a command [F10] to read the host-selected master boot record [col.5, l.62 to col.6, l.4; col.6, ll.12-14; col.9, ll.7-14; F10 command is relayed to the I/O bus then to CPU which generates the associated signal to read the master boot record].

3.21. Puckette discloses a host memory [BIOS 14] configured to load the drive-selected boot record to define a loaded drive-selected boot record, after the disk drive receives the command [col.5, ll.60-62; col.9, ll.7-10].

3.22. Puckette discloses the host processor configured to execute the loaded drive-selected boot record [col.5, ll.62-66].

3.23. Bates discloses a computer system [system 10] with multiple partitions [fig.3; col.4, ll.59-61; non-volatile storage media such as a dedicated disk drive].

3.24. Bates discloses an instruction set [startup or BIOS routine 404] capable of executing an application program [Quicknote routine 406; col.5, ll.16-17, the flag may be set to have Quicknote loaded instead of the usual OS] having a user interface for accepting a user selection identifying the user-selectable function to be performed [col.5, ll.58-67].

3.25. Bates discloses the user interface is a graphical user interface [col.5, ll.58-60].

3.26. Bates discloses the sending of the drive-selected boot record to the computer system by the disk controller, in response to the boot command, is a default operation [col.5, ll.20-21].

3.27. Bates teaches that the advantage of being able to execute an application program without booting the regular operating system is the increase in information access efficiency [col.1, ll.15-33].

Re Claim 1

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4. In re claim 1, Puckette discloses each and every limitation of the claim, as indicated above in findings 3.1-3.15 and 3.19-3.22. Although Puckette discloses the drive-selected boot record configured to load an instruction set capable of executing an application program having a user interface, to execute the application program, to accept a user input, and to load an operating system configured to perform a function, Puckette did not specifically refer to an application program having a user interface for accepting a user selection identifying a user-selectable function to be performed. Bates teaches a computer system with multiple partitions [finding 3.23], the system comprising an instruction set capable of executing an application program having a user interface for accepting a user selection identifying the user-selectable function to be performed [3.24] in order to access information more efficiently [finding 3.27]. It would have been obvious to one of ordinary skill in the art, having the teachings of Puckette and Bates before him at the time the invention was made, to modify the system taught by Puckette to include the application program as taught by Bates, in order to provide a computer system with multiple partitions capable of starting up with an application program having a user interface for accepting a user selection identifying a user-selectable function to be performed instead of the regular operating system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a more efficient way to access computer information.

Re Claims 2-6 and 8-12

5. As to claims 2 and 8, see finding 3.25.
6. As to claims 3 and 9, see finding 3.16.
7. As to claims 4 and 10, see finding 3.17.
8. As to claims 5 and 11, see finding 3.18.

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9. As to claims 6 and 12, see finding 3.26.

Re Claim 7

10. In re claim 7, Puckette discloses each and every limitation of the claim, as indicated above in findings 3.1-3.15. Although Puckette discloses the drive-selected boot record configured to load an instruction set capable of executing an application program having a user interface, to execute the application program, to accept a user input, and to load an operating system configured to perform a function, Puckette did not specifically refer to an application program having a user interface for accepting a user selection identifying a user-selectable function to be performed. Bates teaches a computer system with multiple partitions [finding 3.23], the system comprising an instruction set capable of executing an application program having a user interface for accepting a user selection identifying the user-selectable function to be performed [3.24] in order to access information more efficiently [finding 3.27]. It would have been obvious to one of ordinary skill in the art, having the teachings of Puckette and Bates before him at the time the invention was made, to modify the system taught by Puckette to include the application program as taught by Bates, in order to provide a computer system with multiple partitions capable of starting up with an application program having a user interface for accepting a user selection identifying a user-selectable function to be performed instead of the regular operating system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a more efficient way to access computer information.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Madden et al., U.S. Patent 6178503, discloses a system for managing multiple operating systems with a graphical user interface.
- Assaf, U.S. Patent 5966732, discloses an invention for partitioning a disk drive to have a backup plan in certain corrupted instances.
- Eckardt, U.S. Patent 6542979, discloses a system with a hidden disk partition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (703) 305-8580. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
May 24, 2004


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